

# Honeywell



## Arrigoni Bridge Overview For City of Middletown and Portland



February 10, 2011

- **History**
- **Lighting of the Bridge**
- **Potential Funding sources**
- **Next Steps**

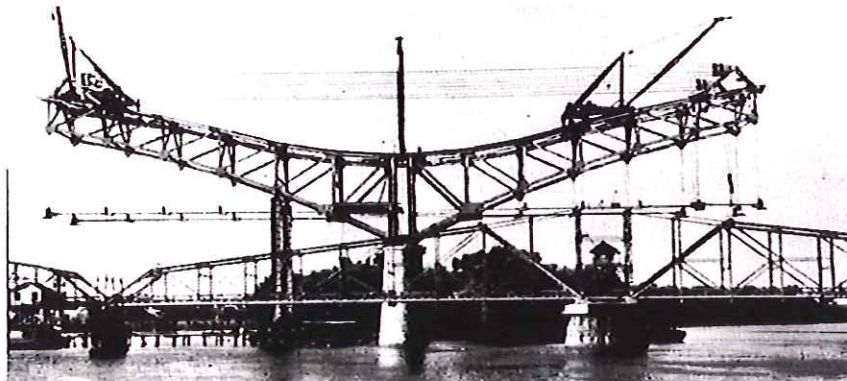


## 75<sup>th</sup> Anniversary



# History

- The Arrigoni Bridge, carrying [Route 66](#) and [Route 17](#) across the Connecticut River, connects Middletown and Portland
- Construction started in 1936, and continued nearly 24 hours a day until the Arrigoni Bridge opened to traffic on August 6, 1938. The day it opened, the bridge was the longest of any kind in New England.
- The Bridge cost \$3.5M to build
- The Bridge is Length: 3,428 feet (0.65 mile), with two 660-foot arches
- The Bridge was named after State Sen. Charles J. Arrigoni, of Durham





# Lighting of the Bridge

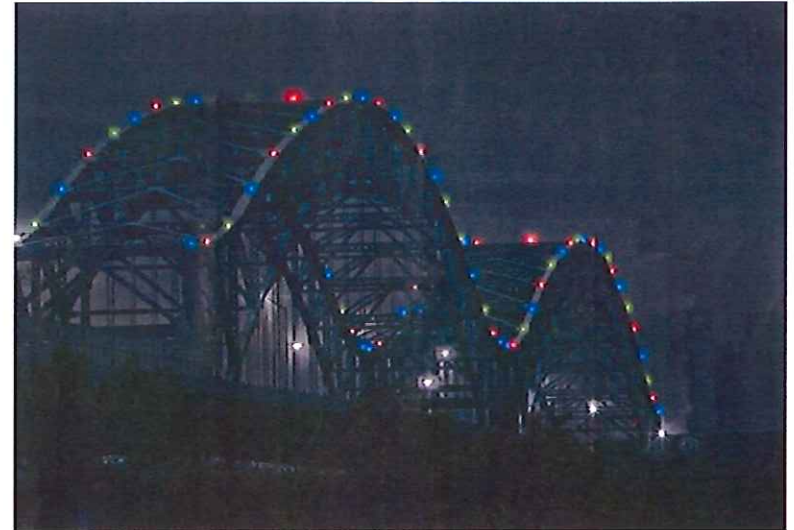
- **Lighting Scenario 's**
  - **Necklace Lighting**
  - **Interior Structure Lighting**
  - **Solar & Battery**



# Lighting of the Bridge

## ➤ Necklace Lighting

- 84 LED Sparkle Accent Lights
- 24 Watts each
- New 9.7 Watt Options Available
- Safe 12 Volts
- Computer Color Controlled - RGB



- Approximate Lighting Cost to install \$1,800,475
- Annual Lighting Energy Cost \$954
- Useful life of new technology 75,000 hrs – 17yr



*Bridgelite  
LED*



# Lighting of the Bridge

## ➤ Interior Structure

- 28 LED Flood Lights
- 36 Watts each
- Safe 24 Volts
- Exterior Structure Silhouetted



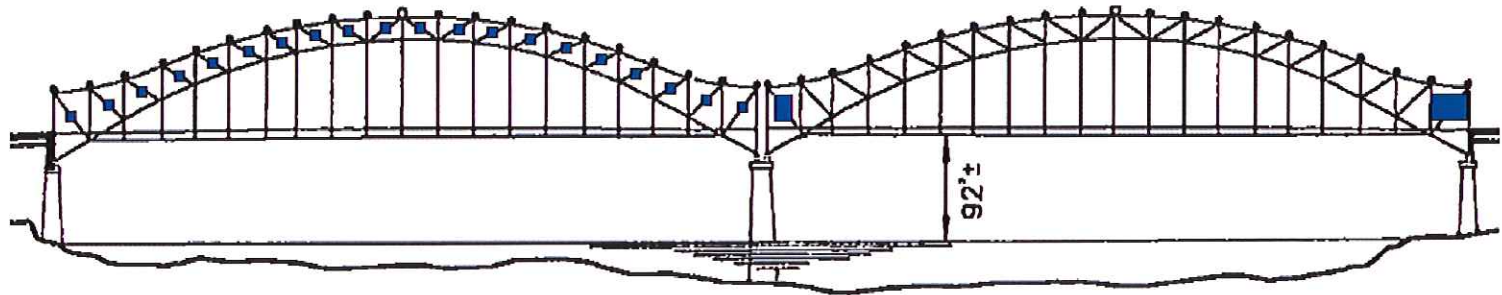
- Approximate Lighting Cost to install \$993,175
- Annual Lighting Energy Cost \$477
- Useful life of new technology 75,000 hrs – 17yr





# Lighting of the Bridge

- **Solar Battery System & *Recommended Solution***
  - **20.25 kW PV Array – With 3 to 6 Day Battery Capacity**
  - **Optimized to be used with LED Fixture – No Rectifiers**



- **Approximate Lighting Cost to install \$1,058,650**
- **Annual Lighting Energy Cost \$0.00 (A Total Savings \$1,430)**
- **Useful life of new technology 25+ years**
- **Enhancement to Further Upgrade the Yellow HPS Deck Lighting to White LED to Match the Color Quality Esthetic of the Accents**



# Potential Funding Sources

- **Potential Funding sources**
  - **\$400,000 Federal Grant**
  - **Northeast Utilities energy efficiency grant**
  - **CT Clean Energy fund**
  - **Other?**





# Next Steps

- **Choose a solution**
- **Develop final costing**
- **Establish timeline for implementation**
- **State approvals?**
- **Finalize funding sources**
- **Begin installation**



**Questions?**

